

1097904  
SEQUENCE LISTING

<110> Ribaudo and Shields

<120> B2 Microglobulin Fusion Proteins and High Affinity Variants

<130> 67022

<140> 10/727,000

<141> 2003-12-02

<150> 09/719,243

<151> 2001-03-19

<150> PCT/US99/12309

<151> 1999-06-03

<150> 60/088,813

<151> 1998-06-10

<160> 20

<170> PatentIn Ver. 2.0

<210> 1

<211> 119

<212> PRT

<213> Homo sapiens

<400> 1

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Met Ser Arg Ser Val Ala Leu Ala Val Leu Ala Leu Leu Ser Leu Ser
 1           5           10           15
Gly Leu Glu Ala Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg
          20           25           30
His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser
          35           40           45
Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu
          50           55           60
Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp
          65           70           75           80
Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp
          85           90           95
Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile
          100          105          110
Val Lys Trp Asp Arg Asp Met
          115

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<210> 2

<211> 339

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: fusion protein

1097904

<400> 2

Met Val Ser Val Glu Thr Gln Ala Tyr Phe Asn Gly Thr Ala Tyr Leu  
1 5 10 15  
Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser Leu Ser Glu Leu Val  
20 25 30  
Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu Tyr Glu His Tyr Leu  
35 40 45  
Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys Tyr Leu Gly Arg Thr  
50 55 60  
Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu His Asn Val Gln Ile  
65 70 75 80  
Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln Lys Lys Pro Pro Thr  
85 90 95  
Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu Leu Ser Val Ile Ala  
100 105 110  
Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln Asn Val Thr Gly Asn  
115 120 125  
Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln Gly His Pro Lys Pro  
130 135 140  
Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr Asn Glu Tyr Gly Asp  
145 150 155 160  
Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu Leu Phe Ser Ile Ser  
165 170 175  
Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val Trp His Met Thr Val  
180 185 190  
Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile Ser Ser Lys Pro Leu  
195 200 205  
Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr Tyr Trp Ala Ser Thr  
210 215 220  
Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ala Ser  
225 230 235 240  
Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His Pro Ala Glu  
245 250 255  
Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro  
260 265 270  
Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys  
275 280 285  
Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser Phe Tyr Leu  
290 295 300  
Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys  
305 310 315 320  
Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp  
325 330 335

1097904

Arg Asp Met

<210> 3

<211> 358

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: fusion protein

<400> 3

Met Ser Arg Ser Val Ala Leu Ala Val Leu Ala Leu Leu Ser Leu Ser  
1 5 10 15

Gly Leu Glu Ala Val Ser Val Glu Thr Gln Ala Tyr Phe Asn Gly Thr  
20 25 30

Ala Tyr Leu Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser Leu Ser  
35 40 45

Glu Leu Val Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu Tyr Glu  
50 55 60

His Tyr Leu Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys Tyr Leu  
65 70 75 80

Gly Arg Thr Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu His Asn  
85 90 95

Val Gln Ile Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln Lys Lys  
100 105 110

Pro Pro Thr Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu Leu Ser  
115 120 125

Val Ile Ala Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln Asn Val  
130 135 140

Thr Gly Asn Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln Gly His  
145 150 155 160

Pro Lys Pro Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr Asn Glu  
165 170 175

Tyr Gly Asp Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu Leu Phe  
180 185 190

Ser Ile Ser Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val Trp His  
195 200 205

Met Thr Val Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile Ser Ser  
210 215 220

Lys Pro Leu Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr Tyr Trp  
225 230 235 240

Ala Ser Thr Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly  
245 250 255

Gly Ala Ser Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His  
Page 3

1097904

260 265 270

Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly  
275 280 285

Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg  
290 295 300

Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser  
305 310 315 320

Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu  
325 330 335

Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val  
340 345 350

Lys Trp Asp Arg Asp Met  
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<210> 4  
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<212> DNA  
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<220>  
<223> Description of Artificial Sequence: primer

<400> 4  
ttcttcagca aggactgggc tttc 24

<210> 5  
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<212> DNA  
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<220>  
<223> Description of Artificial Sequence: primer

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attttcagca aggactgggc tttc 24

<210> 6  
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<212> DNA  
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<220>  
<223> Description of Artificial Sequence: primer

<400> 6  
gtgttcagca aggactgggc tttc 24

<210> 7  
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<212> DNA  
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<223> Description of Artificial Sequence: antisense primer

<400> 7

taagtctgaa tgctccactt tttc

24

<210> 8  
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 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: primer

<400> 8  
 aggtaccat gggttccgtg gagacgcaag c

31

<210> 9  
 <211> 40  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: reverse primer

<400> 9  
 tcgaattcat gatgctagcc caatacgttt gaggagatgg

40

<210> 10  
 <211> 99  
 <212> PRT  
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: Modified hB2m  
 S55V

<400> 10  
 Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His Pro Ala Glu  
 1 5 10 15  
 Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro  
 20 25 30  
 Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys  
 35 40 45  
 Val Glu His Ser Asp Leu Val Phe Ser Lys Asp Trp Ser Phe Tyr Leu  
 50 55 60  
 Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys  
 65 70 75 80  
 Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp  
 85 90 95  
 Arg Asp Met

<210> 11  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: linker that

can be used in fusion proteins

<400> 11

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser  
1 5 10 15

<210> 12

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: linker that  
can be used in fusion proteins

<400> 12

Gly Gly Gly Ala Ser  
1 5

<210> 13

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: signal peptide

<400> 13

Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala Ala  
1 5 10 15

Gln Pro Ala Met Ala  
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<210> 14

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: signal peptide

<400> 14

Met Arg Ala Lys Leu Leu Gly Ile Val Leu Thr Pro Ile Ala Ile Ser  
1 5 10 15

Phe Ala Ser Thr  
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<210> 15

<211> 11

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: c-myc tag

<400> 15

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn

1

5

<210> 16  
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<223> Description of Artificial Sequence: ornithine  
decarboxylase 309-317

<400> 16  
Ser Ser Glu Gln Thr Phe Met Tyr Tyr  
1 5

<210> 17  
<211> 9  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: HTLV TAX 11-19

<400> 17  
Leu Leu Phe Gly Tyr Pro Val Tyr Val  
1 5

<210> 18  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: HIV gag 77-85

<400> 18  
Ser Leu Tyr Asn Thr Val Ala Thr Leu  
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<210> 19  
<211> 10  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: pn2a.A3

<400> 19  
Lys Leu Tyr Glu Lys Val Tyr Thr Tyr Lys  
1 5 10

<210> 20  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: influenza NP  
Page 7

1097904

265-273

<400> 20

Ile Leu Arg Gly Ser Val Ala His Lys  
1 5